THE BIRDS OF CEDAR POINT AND VICINITY.

BY LYNDS JONES.

167. *Peucaea aestivalis bachmanii.*—Bachman's Sparrow.

A bird believed to be the same one was listened to and seen at close rance on May 14 and 17, 1909, on the sand spit at the eastern extremity of the telephone line. The bird was first seen on the wires where it was singing lustily, at intervals making short excursions to the ground and bushes for food, always returning to nearly the same spot and taking up its wonderfully beautiful song. I made determined efforts to secure the specimen on both occasions, but its good angel intervened. The pattern is sufficiently distinct and the song so unique that there should be no more room for doubt of the identification than with the other familiar sparrows. It was not found on May 22, when I again visited the place. One might well be pardoned for departing from the strictly scientific method in an attempt to describe the song of this sparrow — but I shall not attempt it.

168. *Melospiza melodia.*—Song Sparrow.

Abundant during the migrations, common all summer, and found in considerable numbers all winter in all brushy and weedy places. It is one of our most characteristic birds. It bursts into song on any bright day in winter, and sings imperfectly during the fall months. The migrants appear in the second wave of migration, usually just before the middle of March, and the bulk have gone south about the time of the first hard frosts, in October. In winter it selects sheltered places, such as brush piles, weeds and grassy fields and tangles, and often spends the night in hay mows or in straw or stalk stacks. It has been found in some numbers on every trip to Cedar Point, even in the severest weather. When the marshes are frozen it ranges everywhere over the marsh in the dry vegetation.

169. *Melospiza lincolni.*—Lincoln's Sparrow.

A fairly regular spring migrant, not thus far noted in fall. The median date of arrival is May 11, and of departure May 17. It often sings during its stay, but the song is weak and delivered from a low perch, not attracting attention. A typical habitat is the brushy border which fringes the marsh side of the sand spit. On the mainland it is most often met with in the bushes bordering a small stream, whether in the deeper woods or elsewhere. It also frequents the low, wet areas of woods where there is brush. In habits it may be distinguished from the Song Sparrow, which it resembles, by its skulking habits and timidity. The breast streaks are finer and darker.

170. *Melospiza georgiana.*—Swamp Sparrow.

Usually common during both migrations in the Cedar Point marshes, but no positive summer records in any part of the region have yet been secured. It is also often common during the spring migration in low, brushy places anywhere. It sings only in pleasant weather. Observations at Cedar Point have necessarily been largely confined to the borders of the marsh, but there are reliable indications that many individuals spend their time among the vegetation in the more densely grown areas of the marsh. The median date of arrival at Oberlin is April 21, at Cedar Point, March 19. The birds arrive from the north about October first, become common in a week and remain common until the third week of October. My last record is November 26, 1906, at Cedar Point. In the marsh these birds are found in nearly the same situations as the Long-billed Marsh Wren, except that they are more often seen in the fringe of brush along the shore. They are often mistaken for the Wrens by the unwary observer, partly because their song bears some resemblance to the Wren's song. It is so difficult to make one's way in the marsh in summer that I have so far failed to penetrate to the recesses where nesting birds might be concealed. I am inclined to think that a few pairs breed in the marsh. Song and Swamp Sparrows are often found in the same situations in spring, when they may be readily distinguished by the more mouse-like actions of the Swamp, besides the shorter tail and lack of streaking beneath.

171. *Passerella iliaca.*—Fox Sparrow.

Often common during the spring migrations, but never more than scattering during the fall migration. Its typical habitat while it is with us is brushy places, either borders of woods, second growth, or even among the scattered brush cut from trees recently felled, especially if the cutting has left open spaces in the woods. It is also found in some numbers along hedge rows and neglected fence lines. The fringing brush of the sand spit is a typical habitat, and it is found there in rather more numbers than elsewhere. My records indicate that it is likely to reach the sand spit rather earlier than the Oberlin quadrangle, perhaps a week earlier. The median date of arrival for all records is March 20. The earliest record is March 9, 1908, at Cedar Point. The birds leave for the north about April 20 (May 2, 1907), and return about the middle of October (October 2, 1901), and leave at the first touch of winter, usually the first week in November. Fox Sparrows are found with other brush-loving sparrows, but I have never seen flocks of them, rather scattered companies. They sing lustily on bright days. I have often seen them feeding with Towhees.

172. *Pipilo erythrophthalmus.*—Towhee.

Common everywhere in woods from late March or early April to the first week in October (October 15, 1906), a few remain all winter. On the Cedar Point sand spit it is abundant during the spring migration, but not more than half a dozen pairs breed there, and those in the woods and thickets west of the resort grounds. The Towhees form a part of the second migration wave, which sweeps through about the middle of March (March 6, 1899, March 22, 1901). My latest record in fall is November 4, 1907. All but the few winter birds have usually gone south by the beginning of the last week in October. The males which stay all winter sing on warm days in late February. A bright colored male spent the winter of 1902-3 in the arbor vitae hedge which borders the Second Congregational yard on two sides. This is across the street from a business house — really in the heart of town. It was heard singing faintly nearly every day during the winter, usually from deep in the hedge. I was surprised not to find the Towhee on any of the islands visited, not even Put-in-Bay nor Pelee, both of which abound in typical habitats. This may account for its small numbers on Point Pelee, as noted by Taverner and Swales. I have twice found nests of this bird in open pastures more than ten rods from any brush or woods, but such pastures were recently cleared woodland.

173. *Cardinalis cardinalis.*—Cardinal.

The story of the Cardinal in the region is one of gradually increasing numbers for the thirty years of record available to me. Prior to 1890 it was practically confined to the river gorges, where it had increased to tolerably common locally, but was not known in the towns. To all but the initiated it was regarded as a stranger. It gradually spread from the river gorges over the wooded parts of the region generally, a pair or two at most being recorded for any upland woods. In 1898 three pairs nested in Oberlin, and nearly every brushy woods harbored a pair or more, except that it seemed to be absent in any woods within a mile of the lake. In 1901, on a trip to the islands with Mr. W. L. Dawson, it was recorded on East Sister, but was not noted elsewhere. It was again noted on East Sister in August, 1904. During a stay of three days (August 29 to September 1st), in 1905, on Pelee Island, the Cardinal was found to be one of the characteristic birds there. Subsequent trips to Pelee Island and to other islands indicate that this bird is still increasing in numbers and extending its range. There has never been the slightest indication of a migration movement. Usually the birds are well scattered over the whole region, but occasionally,

particularly in late winter, considerable gatherings of them may be found. Thus, I have seen as many as 22 individuals in a small red cedar thicket a half mile north-east of "Mill Hollow," in the Vermilion quadrangle.

174. *Zamelodia ludoriciana.*—Rose-breasted Grosbeak.

Common from about the first of May until the middle of July, in the borders of woods. The median date of arrival is May 2. The latest record in fall is September 14, 1906, when two immature birds were recorded. The males arrive some days before the females, usually, and when they outnumber the males they become the aggressors in courtship. The males have been found on the nest, during the incubation period, much oftener than have the females. During the breeding period the typical habitat is a shrubby woods, such as a second growth ten years after the cutting, or a willowy border of a swampy woods. Cedar Point seems to offer several typical habitats, but the birds have been found there only during the spring migrations. While the birds are courting they spend much time in the taller trees within the woods. Both Put-in-Bay and Pelee islands seem to have suitable habitats, but I have not found the Grosbeak on them, possibly because my visits have been too late in the summer.

175. *Passerina cyanea.*—Indigo Bunting.

Common over the whole region, including the larger islands, in brushy areas. The sand spit is a typical habitat, and here the birds are found in great numbers, nesting in the bushes and shrubbery. Of course they are not present in the immediate vicinity of pleasure resort grounds. On the mainland they are sure to be found in the brushy and shrubby borders of all woods. Nests are placed in thickets, whether of bushes, briars, or rank weeds. The males sing most during the warmer weather and the warmer parts of the day. The median date of arrival is May 6. The bulk arrives a few days after the first is seen, and the birds remain common until the end of the third week of September. My latest record is October 9, 1897. This is one of the species which helps form the great wave of migration in spring. I have not noticed any distinct fall movement of birds from farther north.

176. *Spiza americana.*—Dickcissel.

The career of this bird in the region is a checkered one. In a manuscript of the birds about Oberlin by Messrs. L. M. McCormick and G. D. Wilder, completed in 1892, its occurrence is given as casual during the previous thirty years. Its capture anywhere was considered worthy of notice. During the summers of 1894, 1895, and 1896, I have noted it as common about Oberlin. None

were seen the next two summers, and in 1899 but one nesting pair was found, and that west of Elyria. None were found in 1900. In 1901 one was recorded on July 1, 15 and 19, and three on July 22, all near Oak Point. It was wholly absent in 1902 and 1903. In 1904 two were found on May 9, and one on May 12, near Oak Point. It was absent in 1905 and 1906. In 1907 five singing individuals were noted in a field a mile west of Huron, where they appeared to be nesting. In 1908 one was found at the same place on June 1. There were none in 1909. The Dickcissel could hardly have occurred in the region until considerable clearings appeared in the primeval forest, unless it found suitable habitats in the vicinity of Sandusky, since it is a bird of the open country. It prefers fields in which, or near which, there are a few scattering trees to which it may fly when it sings, but a convenient telephone or telegraph line will serve, or even a wire fence if necessary. The reasons for its fluctuations cannot be even hinted at with the data at hand.

177. *Piranga erythromelas.* —Scarlet Tanager.

Common in woods from about the first of May until the first of September. The median date of arrival is May 1. It thus is among the leaders of the van of the great migration wave. The last fall record is October 2, 1901. It is a common migrant at Cedar Point, and three were recorded at the Lake Laboratory during the summer of 1908. Several were always noted in the woods west of the resort grounds. I have not recorded it from any of the islnads, but it undoubtedly nests on the larger islands which have considerable growths of woods. One pair nests upon the Oberlin College campus pretty regularly. The typical nesting habitat is a mixed deciduous woods of moderate density. I have found nests near the border of such woods more often than elsewhere.

178. *Progne subis.*—Purple Martin.

Only scattered colonies of Martins remain to remind us of the much greater numbers which inhabited the region in earlier years. The largest colony known to the writer is one in the city of Sandusky. From this center birds fly out in every direction, mingling with the swallows over the harbor, marsh, and sand spit, and even out over the lake. The individuals which may be seen from the Lake Laboratory could be easily counted at any time, but the almost constant presence of the birds in the air during the day inclines one to the use of the term "common" for indicating the relative abundance of the species. In the Oberlin and Vermilion quadrangles the colonies are small and few. Some individuals would be seen during any outdoor study of an hour or more, in practically any region. I know of no colonies except in towns or

settlements. The median date of arrival is April 10, and the latest fall record is September 30, 1907. The Martins leave the vicinity of their breeding places before the first of August. A roost of several hundred was studied on North Harbor island August 8, 1901, and a great migration from Pelee island across to Marblehead, August 31 and September 1, 1905. On September 1 the migration stream was followed southward past Middle to Kelley's island, where the birds were gathering in clouds preparatory to roosting in the woods near the west end of the island. At twilight they were whirling above the woods in a mighty maelstrom, the vortex of which was over the woods and the spreading top covering the entire island. Arrivals from the direction of Pelee island were continually swelling the host. The maelstrom form had not changed when darkness settled down, making further study impracticable. On August 29, at Pelee island, the Martins were passing at the rate of five a minute from 4:20 p. m. until as late as 9 p. m. With them were groups of Barn, Cliff, Bank, and Rough-winged Swallows, and an occasional Chimney Swift. The wind was west-south-west, brisk, and all of the birds were headed nearly due south-west, or toward Put-in-Bay island rather than toward Middle or Kelley's; but all invariably drifted south so that they passed either over or to leaward of Middle. On August 30, an early morning thunder storm apparently checked a migration which had barely started. After the storm scattered flocks of Martins and Barn Swallows passed over the course of the previous day. At 4:30 p. m. the flight began again and continued well into the night. Swallows were more numerous and moved more directly south without side excursions after insects, and faster. They seemed nervous and somewhat anxious. A flock of Red-winged Blackbirds passed southward over the course, and occasional Nighthawks drifted southward as they fed. On September 2, when the Martins were again migrating in considerable numbers, we sailed eastward into the lake, passing between Kelley's island and Marblehead, where birds were crossing southward, then out eastward, reaching Vermilion at dark. We thus crossed any line of flight from Point Pelee to the mainland in a direct line, but no birds were seen crossing except between Kelley's and Marblehead. It seems to me significant that all of the migrating Martins passed down the east side of Pelee island. We found no evidence of a roost on the island. The most of them were not above 300 feet above the lake, except when they were circling over Kelley's island.

179. *Petrochelidon lunifrons.*—Cliff Swallow.

It is listed as a common summer resident by McCormick and Wilder (MS.), which applies to conditions prior to 1890. There

are two nesting colonies in the Oberlin quadrangle. During the migrations a few individuals are seen with groups of swallows, especially along the lake shore. I am unable to suggest the reason for this rapid decrease in numbers. The old barns where they used to nest are still standing, and conditions for breeding seem to be favorable. English Sparrows have not yet invaded the nesting places to any destructive extent. The median date of spring arrival is April 26; the latest fall record is September 23, 1907. Cliff Swallows are too few to accurately determine their relations to the other swallows in their fall grouping just preceding the southward migration. Occasionally they seem to flock with other swallows.

180. *Hirundo erythrogaster.*—Barn Swallow.

Everywhere common except in woods. Nests are built in any available building, or even under bridges. I have never found it nesting among the shale cliffs, nor about sandstone ledges. From its nesting places it sallies forth over the fields and meadows in search of food. It is also regularly seen in the river gorges flying up and down the stream courses. The median date of spring migration is April 11. It usually remains common in the vicinity of its nesting places until late August, after which it forms great companies in the vicinity of the swamps, passing the night on telegraph wires or other similar perches, before winging southward. Mention has already been made of the flights of this swallow accompanying the Martin fall migration flights. Such birds must be those which have nested well north. Barn Swallows remain in the vicinity of Oberlin until the last of September (October 15, 1906). None have been known to nest anywhere along the Cedar Point sand spit, because there is no suitable place, but numbers are seen flying up and down the lake shore and over the harbor.

181. *Iridoprocne bicolor.*—Tree Swallow.

Scarce everywhere except along the Cedar Point sand spit, where it nests in the trees not far from the mouth of Black Channel, easterly. It is regularly recorded during the spring migrations about Oberlin, especially at the Water Works reservoir, but never more than three or four individuals at a time. After the breeding season, during late July, I have seen great companies gathering to roost in the swamp vegetation east of the mouth of Black Channel. They formed the characteristic funnel group before finally settling into the vegetation for the night. In the morning they often disperse over the marsh, many alighting on the tops of cattails or other stiff marsh plants, before finally flying away. The median date of arrival is April 11, the earliest April 1, 1908. The latest fall record is October 22, 1906. This swallow was noted among the islands, but there was no direct evidence of nesting on any island. How-

ever, all trips have been too late in the season to coincide with the nesting period. I know of no nestings in bird boxes in this region.

182. *Riparia riparia.*—Bank Swallow.

Common wherever there are banks of earth suitable for nest holes. The banks facing the lake are the favorite places, but the banks of streams, or even of railroad cuts are utilized. During the spring migration and after the young have left the nest these swallows are more widely distributed over the country, often feeding over meadows and pastures at some distance from water. During the spring migration numbers visit the Oberlin Water Works reservoir almost daily. In the fall they gather in great numbers on the telegraph wires, associating with Barn and Tree Swallows, but usually flying in companies by themselves. The median date of spring arrival is April 22, the earliest being April 6, 1902. They are usually common, but gathered into large companies near the lake until the middle of August. A few linger well into September (October 7, 1907). There are no suitable nesting places on the sand spit, and very few on any of the islands, except Kelley's, yet numbers are seen flying about over the lake in the vicinity of the islands all summer. Mention has already been made of the migraitons accompanying those of the Purple Martins.

183. *Stelgidopteryx serripennis.*—Rough-winged Swallow.

Common along the river gorges, where it nests among the shale cliffs, and often noted about large stone culverts, where it was evidently nesting. Individuals are generally seen in groups composed of most of the other swallows which hawk up and down the lake beach. This swallow may be readily distinguished by its manner of flight, by its note or song, and by its dirty grayish underparts. It has been reported as sometimes nesting with the Banks, but I have seen no evidence of this. The median date of arrival is April 23, and the latest fall record is September 23, 1907. Mill Hollow, a horse-shoe bend of Vermilion River, with a large area of exposed shale surface, was a favorite nesting place of this swallow until the English Sparrows emigrated to it and preëmpted all of the available clefts which were the rightful homes of the swallows. There are practically no swallows there now. If it had not been a human settlement the sparrows would probably not have found lodgement in the shale cliff.

184. *Bombycilla cedrorum.*—Cedar Waxwing.

Tolerably common over the whole region, including the larger islands, in larger numbers and more constant at Cedar Point than elsewhere. No nests have been found near the Lake Laboratory, but there can be little doubt that the young are reared thereabouts.

On the mainland nests are usually made in orchards. The flocking habit persists even during the period of incubation, the unoccupied birds feeding together. Little damage is done to cherries in the region, because the birds are not sufficiently numerous to become noticeable in comparison with the Robins. In winter flocks are more frequently met in the large cemeteries than elsewhere except the natural cedar thickets, because cedars and other evergreens are more numerous there and furnish suitable habitats.

185. *Lanius borealis.*—Northern Shrike.

Of regular occurrence on the mainland. Extreme dates of occurrence are November 6, 1897, April 3, 1899. At best there are only a few individuals recorded during any winter, and most of those either within the stream gorges or in their vicinity. One occasionally finds its way into Oberlin, where it feeds upon the English Sparrows. Most of the quarry examined has proved to be Tree Sparrow, probably because this sparrow is the most numerous bird in winter, always excepting the English Sparrow. It is seen hovering over a field, much after the manner of the Sparrow Hawk, when it must be looking for small mammals. None have been noted in the vicinity of Cedar Point.

186. *Lanius ludovicianus migrans.*—Migrant Shrike.

A regular summer resident. Judging from the conditions in Russia Township there are about a dozen pairs in each township. With very few exceptions nests are placed in osage orange hedge rows, of which there remain considerable numbers in the region under consideration. I have not seen it nor evidences of its breeding on any of the islands. At Cedar Point it has been recorded during the spring migrations feeding along the sand spit. The median date of arrival for fourteen years is March 15, the earliest being March 2, 1901. My latest record is October 31, 1896. Recorded dates of occupied nests are March 30, April 11, 13, 14, 18, 20, 21, 22, and young, June 5. Nests are regularly destroyed by men and boys, on the plea that the birds kill chickens, and even young pigs and lambs, and that they are witches! The families remain together during the summer and early fall, when the old birds indulge in a good deal of singing.

187. *Vireosylva olivacea*—Red-eyed Vireo.

This is one of the characteristic woodland birds in summer. It is also characteristic of parks and door-yards in which trees and shrubbery are permitted to grow. One can hardly use the word abundant for this vireo, because were it not for the incessant singing it would not appear to be numerous. The song carries far and multiplies the effect. It is not less common on the Cedar Point

sand spit, for practically its whole length, and about the Lake Laboratory gives the impression of being abundant. It was found on all of the wooded islands, even Hen island, and North Harbor. The median date of arrival is April 30. My latest record is October 1, 1906. I have not found a nest of this vireo in the past ten years that did not have at least one egg of the Cowbird in it, and there are often two and even three. One young Cowbird in a nest is enough to cause the death of every young vireo. The earliest nest recorded is May 29, 1903.

188. *Vircosylva philadelphica.*—Philadelphia Vireo.

Not recorded until May 24, 1906, when two were captured at Ruggles Beach, east of Huron. On September 21 and 24 of the same year two were found near Oberlin. In 1907 four were found on the sand spit April 29, and on May 13 it was found there in uncountable numbers. The last one was recorded on May 27, and none in the fall. In 1908 it was recorded on May 11, 16, 18 and 20; 1 2, more than 10, and 1 respectively, all along the sand spit. The records for 1909 are May 6, 12, 14, 17 and 19; 1, 1, 2, 3, and 1 respectively. From these all too scanty records the Sandusky region would appear to contain a distinct migration route. My short experience with the bird in the spring migration indicates that it is a lover of the bushes and shrubbery which are characteristic of the borders of swamps, or the flood plain of small streams. Its habitat is thus distinctly different from that of any other vireo.

189. *Vircosylva gilva.*—Warbling Vireo.

Common in parks and about human habitations, but scarce in brushy wood from about May 1st to the middle of September. On the Cedar Point sand spit it is much more numerous east of the Lake Laboratory than west of it. The typical habitat seems to be an open woods with considerable under-brush, always remembering that in these days the vicinity of human habitations is preferred. The median date of arrival is April 27. My latest fall record is September 20, 1907.

190. *Lanivireo flavifrons.*—Yellow-throated Vireo.

Tolerably common in the heavier woods from the first week in May to the first of September. I found one about the middle of the sand spit on April 27, 1908, which is the only record for the sand spit. I did not find it on any of the islands. The typical habitat is a woods with slender but high trees, and with little or no underbrush. I have not found typical breeding places on any of the islands, and there are none on Cedar Point except the pleasure resort grounds. The median date of arrival is May 1. My latest fall date is September 21, 1906.

191. *Lanivireo solitarius.*—Blue-headed Vireo.

Usually fairly common during the spring migrations, but seldom seen in the fall. It is a woodland bird, occasionally seen in parks. It is found in much the same situations as the Yellow-throated, but inclines to feed nearer the ground, among the lower branches of the trees, or even in the underbrush. It does not sing much. I have found it in considerable numbers on the sand spit in the spring migrations, but none in the fall. The median date of spring arrival is April 29, and of departure May 16, the latest being May 25, 1909. The fall records are September 12, 1898; September 21, and October 5, 1906. All fall birds were singing.

192. *Vireo griseus.*—White-eyed Vireo.

One was seen about the middle of the sand spit on April 27 and captured there near the same place on May 4, 1908. Another one was well seen in a woods south of Oberlin on April 29, 1908. These birds were in the characteristic habitat for the species, the bushes along the margin of the marsh on the sand spit, and the brush fringe of the woods near Oberlin. These are all of the records for this vireo in the region.

193. *Mniotilta varia.*—Black and White Warbler.

Common during the spring migrations, but scarce in fall. A few pairs remain to breed in the river gorges in and near the evergreen growths. This warbler is found wherever there is any considerable growth of trees. Numbers are found every spring on the Oberlin College campus, and elsewhere about the town. The median date of spring arrival is April 29, and of departure of the bulk May 7. Most fall dates of last seen are in the last week of September. It was noted on East Sister island on August 28, 1905, and on Pelee island on August 29, 30, 31, and September 1 of the same year. Of course these birds were in migration. One was noted during the last week of July, 1907, in the vicinity of the Lake Laboratory, which may have bred on the sand spit; otherwise it is a common migrant all along the course of the sand spit.

194. *Protonotaria* citrea.—Prothonotary Warbler.

The only records are May 9 and 14, 1904, at Oak Point, one specimen on each date. The lagoon and its environs at Cedar Point furnish nearly typical breeding habitats.

195. *Helmitheros vermivorus.*—Worm-eating Warbler.

One near the east end of the sand spit in the bushes on the beach side, April 29, 1907. This is the only unquestionable record for the whole region. Unsubstantiated reports of the occurrence of others have come to me.

196. *Vermivora pinus.*—Blue-winged Warbler.

Locally common in swampy woods during the summer. I have looked for it in vain in the swampy woods within a mile of the lake shore, even in the migrations. The only Cedar Point record is April 27, 1908, when one was found a half mile east of the Lake Laboratory. What the influence is which keeps this warbler away from the vicinity of the lake where typical breeding habitats are more numerous than elsewhere I am unable to suggest. Of course it has not been found on any of the islands. The median date of arrival is April 29. Nests have been found May 19. My latest fall record is September 21, 1906.

197. *Vermivora chrysoptera.*—Golden-winged Warbler.

Irregular and scarce in the spring migrations. The first record is May 7, 1894. It was not again seen until May 6, 1901, and was five times recorded during that spring, the last date being May 16. On May 9 a pair was watched for a considerable time because they seemed to be getting ready to build a nest, but were not again seen. In 1902 one was seen May 4, and three May 5 and 7. In 1903, one May 11. 1904, one May 7. 1905, one May 17, and one May 23. 1906, one May 14. 1908, one May 11. All of these records are for the immediate vicinity of Oberlin, most of them in a wood one mile south of the town. All but one of the birds noted were in low second growth woods or the brushy border of larger woods, where water stands until June. It is hardly likely that this warbler nests anywhere in the region.

Vermivora leucobronchialis.—Brewster's Warbler.

Although this is regarded as a hybrid between the last two species, enough interest attaches to its distribution to warrant specific treatment here. It was first found in a thin woods just outside of the corporation limits of Oberlin, May 23, 1902, singing the half Blue-wing and half Golden-wing song. One was again closely studied in an adjoining woods on May 28, singing the same song. These two birds acted suspiciously like nesting birds, but prolonged watching failed to substantiate the suspicion. In 1903 the records are May 9, 12, 14, 16, 18, 19, all in the second growth part of the "South Woods," a mile south of Oberlin, one each time except the 12th, when two were captured. These birds were singing a mixed Blue-wing-Golden-wing song, and one was seen chasing a female Blue-wing. In 1904 one was seen on May 10, 11, and 12, in the woods in which the first one was found, but it was not singing. No more were seen until 1907, when one was studied at close range at the Lake Laboratory. The last record is for the old "South Woods," May 1, 1908, a singing bird. Three specimens captured and all of those noted and carefully studied were without any black on the

throat and with only a small patch of pale yellow on the breast. It seems to me a little singular that in the region where the Golden-wing is so scarce and so irregular, and where it clearly does not breed this supposedly hybrid form should prove almost equally regular and numerous. Why should its association, not only here, but elsewhere, invariably be with the Blue-wing rather than with the Golden-wing.

198. *Vermivora rubricapilla.*—Nashville Warbler.

Common during the spring migration, less common in fall. It is found ranging through all wood-lands, but less numerous in the deepest woods, and inclined to be more numerous in the shade trees in parks and about human habitations, and in orchards. It has been common on the Cedar Point sand spit each spring migration. I did not find it on any of the islands, except East Sister (Aug. 28, 1905), probably because my visits have been too early in the fall. The median date of spring arrival is April 30, and of spring departure May 21, the latest record being May 27, 1901. Fall records are few, but they indicate a fall arrival during the second week of September. My latest record is October 16, 1905.

199. *Vermivora celata.*—Orange-crowned Warbler.

A fairly regular but never a common migrant in spring; none noted in fall. It has been rather more common along the sand spit on the great days of migration than elsewhere. The median date of arrival is May 6, and of departure, May 19. The extremes are April 26, 1909, May 22, 1909. This warbler seems to prefer the brushy areas of rather open woods, feeding near and on the ground.

200. *Vermivora peregrina.*—Tennessee Warbler.

Common, sometimes abundant in the spring migrations, but usually scarce in the fall migrations. Comparing my experiences with this warbler in this region with those in central Iowa, where the birds were far more numerous in the fall than in the spring, I am naturally led to the conclusion that the presence of Lake Erie profoundly influences the southward movement. It was tolerably common on Pelee Island on August 29 to September 1, 1905, but was not found on the mainland that fall. It is more numerous in orchards and about human habitations than elsewhere in spring, but it may be found scattered through the woods during the height of the migration. It has always been found in numbers on the sand spit. The median spring dates are, for arrival, May 10, for departure, May 22. Extreme dates are May 4, 1899 and 1904, and May 29, 1903. Fall Oberlin quadrangle dates are September 16, 21, 26, and October 1. It was common September 16, 1898, but only one was recorded on each of the other dates.

201. *Compsothlypis americana usneae.*—Northern Parula Warbler.

It has been recorded every year since 1898, except 1905, always in small numbers, and only once in the fall, October 7, 1907, at Cedar Point. It is found in the higher woods, and is a frequent visitor to the Oberlin College campus, well up in the large trees which make the campus beautiful. It is also regular in small numbers on the Cedar Point sand spit in spring. Well authenticated nestings have been reported from various parts of the state, but there are no suitable nesting habitats in this region. The median date of spring arrival is May 6, and of departure, May 14; extreme dates being May 1, 1900, and May 24, 1909.

202. *Dendroica tigrina.*—Cape May Warbler.

While it is by no means common it is found regularly during the spring migrations. The typical habitats on the mainland are orchards and the lower branches of shade trees on lawns. I have also found it in the shrubbery of the sand spit east of the Lake Laboratory. There is a good deal of variation in the dates of spring arrival, probably largely owing to the scarcity of the species rather than to irregularity in the actual migrations of the species. The median date is May 11, and of departure, May 16. The extreme dates are May 4, 1899, and May 21, 1907. The only fall records are October 1, 1906, one immature at Oak Point, and September 23 and 30, 1907, one on each date, both at Cedar Point.

203. *Dendroica aestiva.*—Yellow Warbler.

Common all summer in orchards, the brushy borders of woods, and the bushes which border and grow in swamps and marshes. There are more individuals in the immediate vicinity of the lake shore than in areas of equal extent elsewhere because suitable habitats are more plentiful and of greater area there. It was common on all of the larger islands, but was not found anywhere in late August, 1905. It is common all summer along the whole extent of the sand spit, except only the pleasure resort grounds. It also ranges out into the marshes and nests in the scattering willows and button bushes which have found a foothold on the few ridges near Black Channel. Next to the Myrtle Warbler, this is the earliest to appear in spring. The median date of arrival is April 23. The earliest date is April 11, 1908. The birds are seldom common after July 25, and most have gone south by the middle of August. My latest record is September 13, 1907, at Cedar Point. My latest records for singing birds are August 6, 1898, and August 7, 1902.

204. *Dendroica caerulescens.*—Black-throated Blue Warbler.

Common during the spring migrations, in small numbers in fall. The habitat of this warbler is the lower branches of the trees and

shrubbery in woods. It is often seen feeding on the ground, usually at the roots of trees. It is a regular visitor to the Oberlin campus, and has been found plentifully distributed in the bushes and shrubbery on the sand spit. A few individuals were noted on Pelee island August 29 to September 1, 1905, and on Middle island on September 1, 1905. This is a full week earlier than the first fall records in the vicinity of Oberlin. The median date of spring arrival is May 4, and of departure, May 23; the extreme dates being April 27, 1896, and May 29, 1901. They usually arrive about September 10, and tarry until the first week in October.

205. *Dendroica coronata*.—Myrtle Warbler.

This is the first warbler to reach us in spring, the vanguard being made up of a few strongly colored males. The median date of spring arrival is April 20; of arrival of the bulk, April 29; of departure of the bulk, May 13; of last seen, May 16. Extreme dates of arrival and departure are April 12, 1904, and May 28, 1907. Fall arrivals may be expected about September 22, and a few birds tarry until the first touch of winter, which was November 2, 1899. It is often common during three weeks in October. This warbler is thus common during the spring migrations, when it is more often found in the woods than elsewhere, and may be common in fall, when it is more numerous in the fields than in the woods. In the spring it associates with other warblers and vireos, but in the fall with the smaller sparrows, particularly the Chipping Sparrow, and the Palm Warbler. It sings during each migration, but less forcefully in fall. It is a less frequent visitor to the Oberlin campus than many of the other warblers, but is common on the sand spit. I did not find it on any of the islands on the late August visit in 1905. The other visits were much too early. One was recorded in medium plumage at the Slate Cut, about midway of the marshes and a quarter mile south of the marshes, July 18, 1908. If this specimen represented a breeding pair it is the only instance of breeding known to the writer. It is more likely that it was a waif.

206. *Dendroica magnolia*.—Magnolia Warbler.

Common during the spring migrations, only irregular and few in the fall migrations. It was abundant all along the Cedar Point sand spit in the migrations of 1907. It is found in woods, particularly brushy woods, and is generally not far from the ground. It also visits the shrubbery and trees of lawns and parks and orchards. I found a juvenile on Middle Bass island August 26, 1905, and a full plumaged bird on East Sister two days later; also on Pelee island from August 29 to September 1, when it was fairly common. It was also present on Kelley's island on the 1st and 2d, but none were found on the mainland in the Vermilion and Oberlin

quadrangles during that fall (1905). The median spring dates are: for arrival, May 5; arrival of bulk, May 11; departure of bulk, May 18; last seen, May 22. Extreme spring dates are April 28, 1896, and May 28, 1908. The scattered fall records indicate that the birds arrive early in the second week of September and remain about a month (October 7, 1907).

208. *Dendroica caerulea.*—Cerulean Warbler.

Locally common during the summer in the taller woods, nesting in beech and maple trees. I have failed to find it in any of the seemingly suitable woods within two miles of Lake Erie, and have never found it anywhere on the Cedar Point sand spit, even in the migrations. I am unable to explain its absence near the lake. The median date of spring arrival is May 4. My latest fall record is September 21, 1906. On May 20 and 21, 1904, two individuals were noted singing on the Oberlin campus. I have never seen any indications of a marked southward movement in the fall, and doubt if there is any such fly line in the region.

208. *Dendroica pensylvanica.*—Chestnut-sided Warbler.

Common as a spring migrant, but hardly more than casual in the fall. This dainty little warbler regularly comes into the dooryards and orchards in town and often swarms in parks, and is as common in the woods. On May 13, 1907, when the greatest migration of small birds that I have ever witnessed was in full swing, this wrabler literally swarmed all over the Cedar Point sand spit from one end to the other. There was no estimating the numbers. The median date of arrival in spring is May 5, of departure, May 21; but it has arrived on May 2 four times, and May 3 and 4 once each. The only fall records are September 21, 1906, and September 30, 1907. In the first instance there were two birds in immature plumage, in the second ten individuals. There is no evidence that this warbler now nests within the region. If it ever did so the time must have preceded the disappearance of the pine and cedar woods bordering the mouths of the rivers.

209. *Dendroica castanea.*—Bay-breasted Warbler.

Regular and sometimes common during the spring migrations; regular, but seldom common, during the fall migrations. It is a woods-loving bird, but is often found in parks and about premises where there are fair-sized to large trees. It was common on the Cedar Point sand spit on May 13, 1907. I did not find it during the last week of August on any of the islands in 1905. The median date of arrival in spring is May 11, and of departure, May 20. My latest spring record is May 28, 1907. Fall records indicate that the first fall migrants appear about the first of September and re-

main nearly or quite a month. My latest fall record is October 2, 1901. The difficulty of positively distinguishing between this and the next in the fall plumage makes careful scrutiny necessary. In a good light and with strong glasses one may note the buffy of this species as against the yellowish of the next. In my experience the two species are about equal in numbers in the fall.

210. *Dendroica striata.*—Black-poll Warbler.

Regular and sometimes common in the spring migrations, seldom common in the fall. It is more strictly confined to the woods than the preceding species, seldom being seen in town and about residences. Birds in perfect breeding plumage are about in the proportion of one to four of those in the immature and female plumage, in the spring migration. Of course there are no breeding plumages in the fall. McCormick and Wilder give this warbler as common in the spring, abundant in the fall. They had no fall records of the Bay-breasted. It is likely that they confused the two species in the immature plumage and called all Black-poll. What they said about this species has never since been true at any rate. The median date of spring arrival is May 14, and of departure, May 24, but there were two singing on June 2, 1903, and one full plumaged male June 3, 1904. I found it on East Sister island on August 28, and on Middle and Kelley's islands on September 1st, 1905. Fall records indicate that it begins to migrate across the region about the first of September, and may tarry well into October (October 16, 1905). It was common on the sand spit May 13, 1907.

211. *Dendroica fusca.*—Blackburnian Warbler.

Common in the spring migrations, only twice recorded in the fall. It is common wherever there are trees of considerable size, being a familiar object in Oberlin during its spring sojourn. The median date of arrival is May 5, and of departure, May 21 (May 29, 1909). Fall records are September 24 three birds, October 15 one female, 1906. I have usually found it scarce along the sand spit, but on May 13, 1907, it was nearly abundant. I found it on Pelee island August 29 to September 1, 1905, but not on any of the other islands. It was in company with the several other migrating warblers near the south end of the point. It is unlikely that such a well marked species would be wholly overlooked if it occurred regularly in fall. It is perhaps significant that the two fall records given were for the Cedar Point sand spit. Since it is fairly common on Point Pelee during the fall migrations, according to Taverner and Swales, it must make the passage to the south somewhere in the island region. At least not many migrate southward through the Vermilion and Oberlin quadrangles.

212. *Dendroica virens.*—Black-throated Green Warbler.

Common during the spring migrations, scarce on the mainland but usually common at Cedar Point in the fall. There is good reason for believing that an occasional pair nests in the pine woods north of Elyria. I have seen a bird there during every week of the late spring and summer, and its actions betokened the presence of a nest or young. It is found everywhere that there are trees, and is therefore common all about Oberlin and in city parks as well as in the woods. The median date of spring arrival is April 29, of departure, May 20 (May 28, 1907). The birds return the first week in September and remain until October (Oct. 16, 1905). I found it on East Sister island on August 28, 1905, but nowhere else among the islands. It has been common in both migrations at the Cedar Point sand spit, much more so during the height of the migration season.

213. *Dendroica kirtlandi.*—Kirtland Warbler.

There are five records of this rare warbler, all for the Oberlin quadrangle, and all but one for the immediate vicinity of Oberlin. May 9, 1900, one was heard singing in the orchard bordering the Oberlin corporation line on the south, and on May 11 one heard singing in the "South Woods," and the one singing in the orchard where the first one was noted was captured to make identification certain. One singing male was found at Oak Point May 9, 1904. One singing male in the "South Woods," Oberlin, May 2, 1906. I have confidently expected to find this warbler on the Cedar Point sand spit, but have failed to so far.

214. *Dendroica vigorsi.*—Pine Warbler.

Records of this warbler are hardly more numerous than those of the last species, if those for 1908 are excluded. They are: April 29, one male, singing, at Oak Point; May 13, 1903; and from May 5 to 10 inclusive, 1908, one was seen and heard singing in pine and maple trees in Oberlin. It may be that the scarcity of pine woods in this vicinity is responsible for the few records. I am surprised that Taverner and Swales were not able to locate it on Point Pelee.

215. *Dendroica palmarum.*—Palm Warbler.

Common as a migrant, both spring and fall. In the spring it passes through in the brushy and tangle growths, seldom mounting into the trees, but in the fall it is seldom seen aywhere except in the fields and along fence rows bordering meadows. On the sand spit it ranges along the crest of the sandy beach and down to the water's edge, either in the bushes or among the grass. It seldom ventures into the bushy growth along the marsh. On the sand spit it is decidedly more numerous than on the maniland, and is even

more fearless. On the days of heavy migration, when other birds are also numerous, this warbler seems to start up from every bunch of grass all along the five miles or more of open beach. The median dates of spring migration are: for arrival, April 29, for departure, May 17 (May 22, 1909). Fall arrival, September 16; departure, October 5. It has always been in the most numbers late in September. I did not find it on any of the islands in 1905.

216. *Dendroica palmarum hypochrysea.*—Yellow Palm Warbler.

The only record for this eastern form of the Palm is that already reported in the Auk, IX, 1892, 397. The date was April 10, 1891, near Oberlin.

217. *Dendroica discolor.*—Prairie Warbler.

My records are few. The only time I have seen it in any numbers was May 13, 1907, all along the Cedar Point sand spit, on that greatest day of migration I have ever witnessed. Other records are April 29, 1899, May 14, 1903, May 9, 1904, May 2, 1906; May 11 to 20, 1907, May 11, 15, 16, 1908; May 11, 14, 17, 1909. I have never found it in fall. It has never been seen in the summer. Where did all those which were on the sand spit in 1907 go, since they did not put in an appearnce on Point Pelee? It hardly seems possible that so large a host could return southward to breed after the excitement of the migrations had died out. The typical habitat of this bird in the migrations is a low brushy border of woods. The small growth of bushes along the sandspit seems to form a congenial feeding place.

NOTES ON THE SANDHILL CRANE.

BY STEPHEN SARGENT VISHER.

The Sandhill crane (*grus mexicana* and *g. canadensis*) is one of the most conspicuous birds of the prairie region. Every farmer boy knows its call, and on fair days has seen large flocks soaring at great heights, slowly passing northward. Constantly their unsurpassed calls drift down to earth. When only a slight wind is blowing, these rich, bugle-like notes can be heard farther than the bird can be seen. Several times I have examined, for some moments in vain, the horizon before the authors sailed in view. On windy or rainy days, the flocks fly low nad swiftly in a direct line, and each individual croaks in turn. Thus slowly the music moves along the undulating, curving line.